C.M.H.C.

FLEXIBLE USE AND TENURE STUDY

SUMMARY REPORT

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THE STARR GROUP
in association with

RICHARD DRDLA ASSOCIATES

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1. INTRODUCTION

Changes in the housing market are calling for new types of housing. One approach gaining attention is convertible housing -- that is, single-family housing with the capability of accommodating an accessory apartment. This approach, which is widespread among older housing, also has much potential in new housing.

In order to further explore the potential for new "made-to-convert" housing, Canada Mortgage and Housing Corporation in 1986 undertook a study entitled "Combining Flexible Use and Tenure to Increase the Supply of Rental Housing". The Starr Group, in association with Richard Drdla Associates and Jerome Markson Architects, was contracted to carry out the research.

The objective of the study was "to explore the potential for designing and building new residential units with the built-in capability to accommodate a self-contained rental unit at any stage of its occupancy, and to demonstrate that it can be achieved with minimum disruption and at an economically viable cost."

Contents of the Report

This report summarizes the key findings and illustrates some of the most attractive "made-to-convert" designs from the study. It is anticipated that this material will prove useful to developers, builders, municipal officials and others involved in the supply of housing across Canada.

A separate technical report also has been prepared that comprehensively documents the research undertaken in the study.

Summary of the Approach

In the course of the study, eighteen "made-to-convert" housing examples were designed with twenty-two different accessory units. The designs were all based upon modifications of conventional and modestly-sized housing units already on the market; three were versions of convertible schemes previously built. The examples were developed to cover a wide range of types in both ground-related houses as well as multi-storey apartment buildings.

The conversion costs were estimated for twelve schemes selected to cover the general range of possibilities. These estimates dealt with the conversion costs associated with adding the accessory unit, the deconversion costs for removing the accessory unit, as well as the "front-end" costs for any additional features incorporated in the original construction to facilitate conversion.

As a final step, the economic viability of seven representative schemes was assessed within the Metro Toronto market. Using current house prices, interest rates, operating costs and rent levels, the recoverability of the conversion costs and the affordability of these units was examined.

Conclusions of the Study

The study clearly demonstrates that new "made-to-convert" housing can be both physically feasible and economically attractive.

There are a wide range of conventional housing schemes capable of conversion. With only modest modifications to the designs, conversions to these schemes can be made without major cost, disruption or change.

There also are strong financial incentives for homebuyers to purchase "made-to-convert" houses. In suitable locations, the rent from the accessory units can exceed the conversion and operating costs by a significant amount. This provides for full cost recoverability, while enhancing the affordability of these schemes.

This type of housing -- due to its flexibility and income-generating potential -- appears to be particularly suitable for two major market groups: the young first-time homebuyers seeking a home for raising a family but needing short-term financial assistance; and the mature homeowners looking for a retirement home when their income will be declining and their children leaving home.

While this study represents only a first look at the design and cost of this type of housing, the results are most encouraging. "Made-to-convert" has the potential for economically meeting some of Canada's changing housing needs. It is hoped that both the private and public sector across Canada will consider this approach, and proceed to refine and implement the work initiated here.

2. POTENTIAL FOR "MADE-TO-CONVERT" HOUSING

How is the housing market changing?

The housing market across Canada is being affected by a number of major demographic, social and economic trends. These trends will cause fundamental changes in the housing demand over the next twenty years or more. The emerging demands will considerably enhance the potential of "made-to-convert" housing.

Smaller Households

The first of two important demographic changes affecting housing is household size. Households have been steadily declining in size for some time. In Ontario, for example, the average household dropped from 3.8 persons in 1961 to 2.9 persons in 1981. In 2001, it is expected to be still smaller at 2.5.

The reasons given for this change are many and varied -- longer life spans, fewer marriages, more divorces, more working women, and fewer extended and multi-family living arrangements.

In any case, these figures also reflect a pronounced shift in household types. The predominance of traditional families with children is being replaced by a much more mixed population, which includes a greater number of single person and other non-family households. In Toronto, these non-family households already represent nearly half the demand for housing.

Aging Population

The second important change -- the aging of the population -- is just beginning. Over the next two decades, there will be a steady rise in the average age of the population. This will be seen in the growing number of the older age groups. For example, the number of people aged 55 and over is expected to increase by 40% in Ontario between 1981 and 2001.

The main reason for this aging trend is associated with large population group resulting from the post-war baby boom. This group, because of its size, has a major impact upon the overall population structure. Therefore, as it grows older -- and sustains longer life spans -- it will significantly tilt the average age of the population.

This change also will re-inforce the shift to more smaller households. The households formed by this baby boom group, which are still in their family formation period, will soon be declining in size as the children leave home.

Rental Shortages

While the smaller and non-family households have been increasing in number, there has been a marked decline in the production of rental housing.

In the 1950-1960 period, new high-rise apartments accommodated the growth in the rental market. Since then, the development of these buildings has dropped off abruptly. A number of economic factors have contributed to this change, including high interest rates, revised tax regulations, and rent controls. Also having an impact is increased neighbourhood resistance.

The consequence has been severe shortages of rental accommodation in most communities. Vacancy rates are at an all-time low, and there is no prospect of relief through conventional new building construction.

Increased Housing Costs

The cost of new housing has risen generally at a faster rate than the increase in household income. This means that new housing has has become steadily less affordable for more households. Those most affected are the first-time homebuyers

without equity in property. They are slowing being left behind, and many are seeing their hope of buying a home fading away.

Increased problems with affordability, in turn, produces more pressure on the rental market. Those households unable to buy new homes must continue to reside in rental accommodation.

How will the private development industry be affected?

The housing demand over the next few years will be steadily shifting due to these various trends. The need for single family housing will still remain, but it will no longer dominate residential building sector. The market will become much more diverse. Smaller, more affordable and flexible housing will increasingly become an important component.

The building industry will need to adjust to these new conditions. It will no longer be able to concentrate on one well tested and fairly conservative housing segment. In making this adjustment, it will need to examine and implement a great variety of new solutions.

"Made-to-convert" housing clearly is not the total solution to this more diverse market, nor to the affordability problem. Nevertheless, it is remarkable for being able to respond to so many of these housing concerns.

Builders and developers have much to gain by recognizing the potential of this type of housing. After all, made-to-convert housing can only enhance sales by broadening the range of households purchasing new homes.

Who are the potential markets for "made-to-convert" housing?

For the prospective homeowner, the key features of "made-to-convert" housing are likely to be its flexibility and its capability to generate an income. For these reasons, it

appears to be well suited to two particular groups: young first-time homebuyers and mature family homeowners.

First-time buyers typically are looking for suitable homes for raising a future family, but often have limited financial resources for purchasing them. Made-to-convert housing can make these homes more affordable. In the short-term, the surplus space can be converted into an income-generating accessory apartment, and the additional income used to reduce the overall carrying costs.

Mature households -- for example, those in the 50-60 age group -- typically must plan ahead to the years when their income will decline with retirement, and when their children leave home. While many have the capital to purchase a new house outright, they may be concerned about living on a limited pension. Made-to-convert housing can adapt to their declining space needs, while also generating a rental income that will cover their post-retirement shelter costs.

What are the municipal benefits?

Municipalities also will benefit by supporting this concept. It offers an economic and practical alternative that addresses many of their housing concerns.

"Made-to-convert" housing has the potential for serving these specific needs:

- First of all, it can create much needed rental housing -- especially, smaller units for the growing number of single people and couples. Because the economic rents for the converted units in general will be significantly less than those needed for newly-built apartments, these units also can assist in alleviating the affordability problem for many of these tenants.

- Secondly, it can assist many young first-time homebuyers to afford their own homes. In providing accommodation for young families with children, municipalities also will be better able to maintain enrollment in local schools and support community services and facilities.

- Thirdly, it can provide suitable housing for the growing number of mature and elderly households. Many of these will wish to lead independent lives in conventional neighbourhoods where they will have established social ties.

These needs, it must be particularly noted, can be fulfilled without government assistance. Furthermore, unlike some alternatives like multi-storey apartment buildings, it can be achieved without disrupting the existing low-scale physical character of most smaller and outlying communities.

Municipalities, therefore, should look upon made-to-convert housing as a way of enriching their housing stock, and better satisfying their increasingly diverse residential structure.

3. SUMMARY OF STUDY FINDINGS

How does convertibility affect the design?

A wide range of conventional units, with only modest design changes, are capable of readily accommodating an accessory apartment. These units include detached, semi-detached and townhouses as well as multi-storey buildings.

In general, the ground-related houses appear to offer a much greater variety of design possibilities than the multi-storey apartments. This reflects the limited range of apartment layouts available on the market rather than any inherent unsuitability on their part for conversion.

All units are not suitable for conversion. The key factors that allow for convertibility are these:

1) Sufficient space for the second unit should be available in one area. As a rough guide, the minimum required area will be approximately 40 m^2 for a bachelor, 50 m^2 for a one-bedroom unit and 60 m^2 for two-bedroom. Modestly-sized houses appear able to accommodate bachelor and one-bedroom units, while still maintaining adequate space standards, but adding two-bedroom or larger units will be more difficult.

2) The space must be redundant to the needs of a small family. Most commonly, these areas will be found in basements and in family/recreation rooms -- especially those associated with an extra bathroom and/or a guest room. Garages may be candidates in some case, depending on the provision of alternative parking. Using extra bedroom space is also possible, but this depends on accessibility as discussed next.

3) The space must be readily accessible from the outside without passing through the primary unit. This is most important for accessory units above or below grade. The location and configuration of the stairs are generally the critical feature; they must be positioned near the entry so they do not isolate part of the house from private use.

4) The space must be served readily by plumbing. While some units can utilize existing bathrooms, all of them will need new kitchens. The plumbing must be accessible to facilitate installation, and ideally, should be prepared in advance to minimize damage to the associated finished surfaces.

Although the units can be designed to minimize the physical changes needed, some changes are inescapable at the time of conversion. The most common improvements are likely to involve adding a new kitchen, some repainting, and modifying the electrical system, internal partitions and doors. Less frequently, the closets, flooring, laundries, and windows also might be affected.

The need for new bathrooms will vary. In many cases, the accessory unit will be able incorporate an existing one.

The building code does not appear to create major problems for convertibility. Appropriate provision must be made for the more stringent fire and sound regulations required in multi-occupancy buildings. This should be considered at construction in order to minimize the costs and disturbance at conversion.

For the same reasons, the electrical, heating and other service systems also should be designed in advance for conversion.

What does convertibility cost?

The conversion costs, because of the diversity of units considered, ranged widely from about $5,000 to $20,000. The

average was just under $14,000 per unit, and $215/m^2 when expressed on an area basis.

As a rough guide, based on this limited sample, approximately $10,500 should be budgeted for a unit in finished space without adding a new bathroom. $15,000 should be allowed for this unit with a new bathroom, and $16,500 for this unit with a new bathroom in unfinished space like a basement.

The costs reflect the amount of work needed. As noted, some changes appear to be inescapable. The most costly that can be generally expected are the addition of a new kitchen and a new bathrooms, if needed. Not to be overlooked is that conversions typically involve many minor changes, which when totalled can add substantially to the final cost.

The additional features that must be built into these schemes to facilitate convertibility appears to be nominal. The costs of these "front-end" changes range from virtually nothing up to nearly $2,000. The major built-in improvements appear to involve the higher standard of sound and fire separations required in multi-occupancy buildings.

The deconversion costs for returning the house back to single occupancy also are relatively small, with most falling in the $2,000-2,500 range.

What are the economic benefits to the homeowner?

The economic analysis indicates that "made-to-convert" dwellings have significant financial benefits for homebuyers.

The assessment was undertaken for units located in Toronto. The viability of these units in other communities will be affected by the local housing conditions, but similar favourable results can be expected in many places.

The estimated purchase price for these units in Toronto is in the $115,000 - $170,000 bracket. In this market at the current time, they fall into the moderately-priced range rather than the low-priced. These prices reflect their size, which must be capable of accommodating both units after conversion.

The anticipated rents for these units range widely from $375 up to $700. (With the exception of one bachelor unit, these rents are for one bedroom units.) These rents reflect the size and other amenities of the unit. More critically, they are a function of location. While representative locations were used, the same unit in a different location will have a much different rent. Location is the single factor that has the most significant impact upon viability.

All of the test examples have a favourable cost recoverability. To be specific, the revenue from these accessory units is more than enough to cover the conversion and the operating costs of the units. This is true for all of the examples with conventional 25-year loans, and also for many of them with shorter 5-year loans.

The affordability of the these units also is significantly enhanced by the rents that can be charged for the accessory units. The net additional income generated by units drops the required qualifying income by 6% to 28%. This improved affordability is particularly beneficial to the first-time home buyers.

Some of the made-to-convert designs are economically more suited to conversion than others. In general, the ground-related houses appear to offer a much larger variety of economic opportunities because of the wider design possibilities. The conversion of the units in multi-storey apartments generally cost the least, while generating relatively high rents. Basement and garage conversions are less attractive owing to the higher cost of conversion and the limited rent that can be expected.

4. SAMPLES OF FINANCIAL APPRAISALS

One of the clear findings of the study is that "made-to-convert" units provide substantial financial benefits to homeowners when conversion is carried out. While the precise amount of the financial gain will depend on a variety of factors (particularly rent levels in the local market area, interest rates, tax bracket of the homeowner, and the extent of work carried out), the study showed, for each case examined, a clear and substantial financial benefit. This benefit, in turn, improved the affordability of the dwelling for the homeowner.

Below we provide two typical examples for the household types most likely to enjoy the greatest benefit from conversion - first - time homebuyers and mature (or elderly) homeowners. It must be kept in mind that the exact extent of the financial benefit will vary in relation to the factors discussed above

TABLE 4.1 Financial Impact of Conversion
First Time Home Buyer

1.	House Price	$115,000		
2.	Mortgage Principal	$ 86,250		
3.	Monthly Carrying Cost:			
	- Mortgage Payment		$900	
	- Taxes		115	
	- Maintenance/Utilities		135	
	- Total			$1150
4.	Required Annual Qualifying Income			$46,000
5.	Conversion Cost	$ 15,000		
6.	Additional Monthly Carrying Cost:			
	- Mortgage Payment		$160	
	- Taxes/Maintenance/Utilities		125	
	- Total		$285	
7.	Total Monthly Carrying Cost			$1435
8.	Market Rent for Additional Unit		$600	
9.	Net Monthly Carrying Cost			$ 835
10.	Net Monthly Financial Benefit (1150-835)			$ 315
11.	Required Annual Qualifying Income			$33,400
12.	% Change in Affordability (before tax)			+ 25%

a) Assumes 25% downpayment
b) Assumes 12% interest amortized over 25 year period
c) Based on 30% Gross Debt Service

TABLE 4.2 Financial Impact of Conversion
Mature Homeowner

1.	Total Monthly Homeownership Cost	$250		
2.	Required Annual Income			$10,000
3.	Conversion Cost $15,000			
4.	Additional Monthly Carrying Cost:			
	- Mortgage Payment	$160		
	- Taxes/Maintenance/Utilities	125		
		$285		
5.	Total Monthly Carrying Cost	$535	$ 535	
6.	Market Rent for Additional Unit		$ 600	
7.	Net Monthly Carrying Cost		($65)	
8.	Net Monthly Financial Benefit($250-(65))		$315	
9.	Required Annual Income			0
10.	% Change in Affordability (before tax)			N/A

a) Assumes mortgage is fully paid and home is owned free and clear
b) Based on 30%
c) Assumes 12% interest amortized over 25 year period

5. ILLUSTRATIONS OF REPRESENTATIVE SCHEMES

Nine "made-to-convert" schemes are presented on the following pages. Two of these schemes allow for accessory units in two alternative locations. Illustrations of the floorplans before and after conversion are presented. (The accessory unit on the converted floorplan is indicated by the grey tone.) The accompanying text briefly describes the scheme, the conversion work, and its associated costs.

These examples have been selected in order to show a variety of potential designs in ground-related houses as well as multi-storey apartment buildings. Included are housing types suitable for different locations (i.e., downtown and suburban) and market groups (i.e., first-time buyers and mature households). The accessory apartments also indicate the range of possible positions -- basement, ground floor, second floor, and garage.

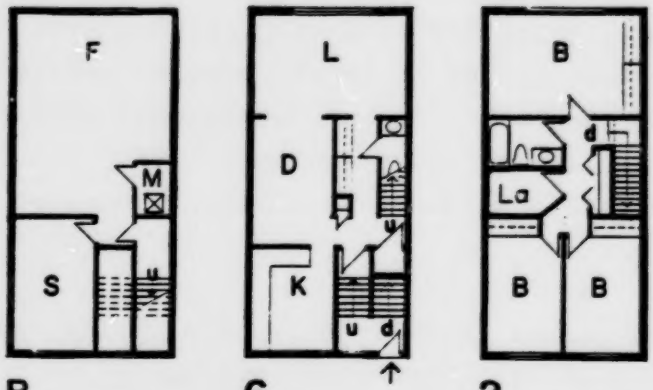
These units, it must be stressed, represent only a small sample of the possible designs. Nevertheless, they should show that an array of convertible solutions is available.

The floorplans are presented at approximately 1:200 (1'= 1/16"), and use the following explanatory room designations:

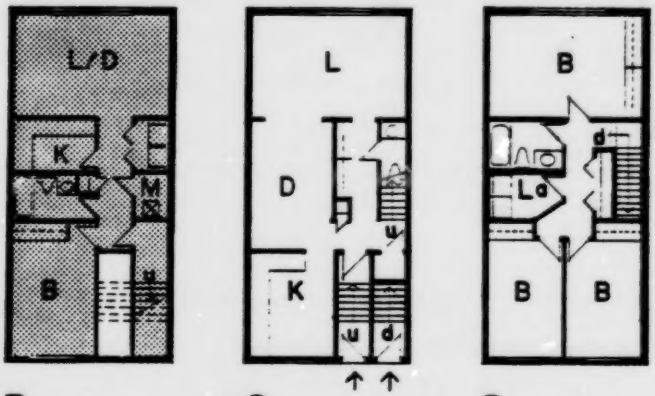
L	Living Room	La	Laundry
D	Dining Room	S	Storage
L/D	Living/Dining Room	M	Mechanical/Furnace Room
L/B	Bedsitting Room	U	Utility Room
F	Family/Recreation Room	G	Garage
K	Kitchen	Bal	Balcony
Fk	Breakfast	Dk	Deck
B	Bedroom		

Example A - Townhouse with Basement Unit

UNCONVERTED



CONVERTED



CONVERSION COST BREAKDOWN

Kitchen	3,500
Bathroom	3,500
Laundry	1,100
Internal Walls	650
External Walls	2,200
Closets	500
Doors	1,050
Flooring	950
Painting	850
Electrical	750
Other	50
Total	$15,100

Example A - Townhouse with Basement Unit

Description:

The unit is a two-storey townhouse* with a basement.

As a single unit, it is a three-bedroom house (148 m^2 gross). The living spaces are on the ground floor, and the sleeping spaces on the second. The basement contains a storage and a recreation room. Depending upon need, the space also could accommodate an extra bathroom and/or fourth bedroom.

When converted unit, it accommodates a self-contained one-bedroom apartment (74 m^2 gross) in the basement. A separate entrance is provided at the front.

The primary unit on the upper floors remains essentially unchanged.

Conversion:

The conversion can be made with no disruption to the primary unit. The only change affecting this unit is the addition of the new entrance door and the associated fire-rated separation.

Within the basement, the major changes involve adding the kitchen and bathroom. The recreation room is used for the living/dining room and the storage room as a bedroom.

The conversion costs depend upon the extent of the initial finishing. Assuming the basement space is essentially unfinished, the conversion costs are estimated to total $15,100. The additional "front-end" costs" are about $1,600, while the estimated deconversion costs are $750.

An important aspect of this design that facilitates conversion is the stair arrangement. Locating the stairs at the front of the unit allows for direct access to the upper and lower unit with minimum change.

The stair has been made wider to meet the building code requirements for multi-occupancy buildings. It also allows for a raised basement with more generous windows, and possibly a walk-out patio, in order to reduce the sense of living below grade.

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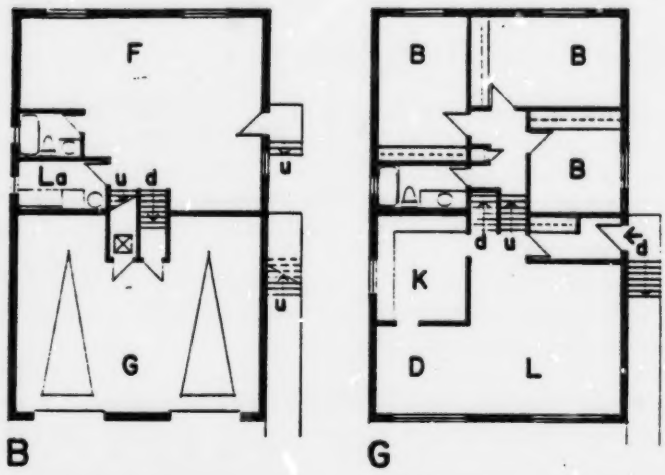
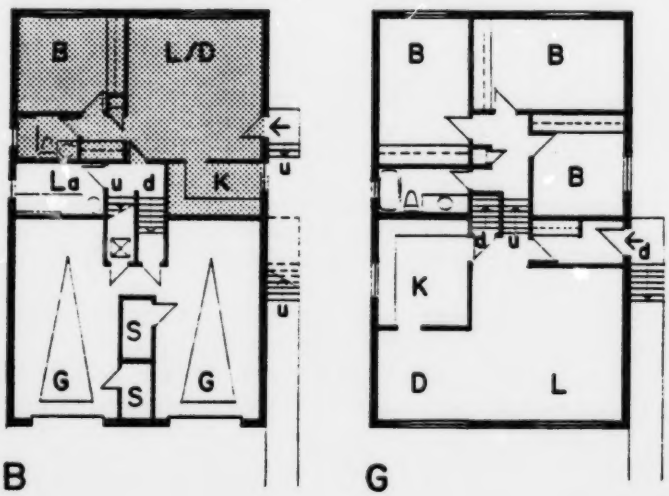
* This example is based upon a unit built outside Washington D.C. by a small developer in the early 1980's.

Example B - Back-Split House with Basement Unit

UNCONVERTED



CONVERTED



CONVERSION COST BREAKDOWN

Kitchen	3,950
Internal Walls	1,950
Closets	1,300
Doors	1,550
Painting	1,000
Electrical	550
Total	$10,300

Example B - Back-Split House with Basement Unit

Description:

The unit is based upon a typical detached or semi-detached back-split. (In a "back-split", the floors in the front and back sections are offset by a half level from each other. A variation of this unit is a "side-split", created by turning its long side to the street.)

As a single family house (139 m^2 gross), it contains three bedrooms on the rear upper level and the living spaces on the front ground level. The rear lower level has a family room, second bathroom and laundry. Internal parking is contained in the front basement area.

The accessory one-bedroom unit (58.5 m^2 gross) is provided in the rear lower level. The separate entrance is located on the side of unit. The laundry, storage and parking are shared, with access provided for both units by the internal stairs.

Conversion:

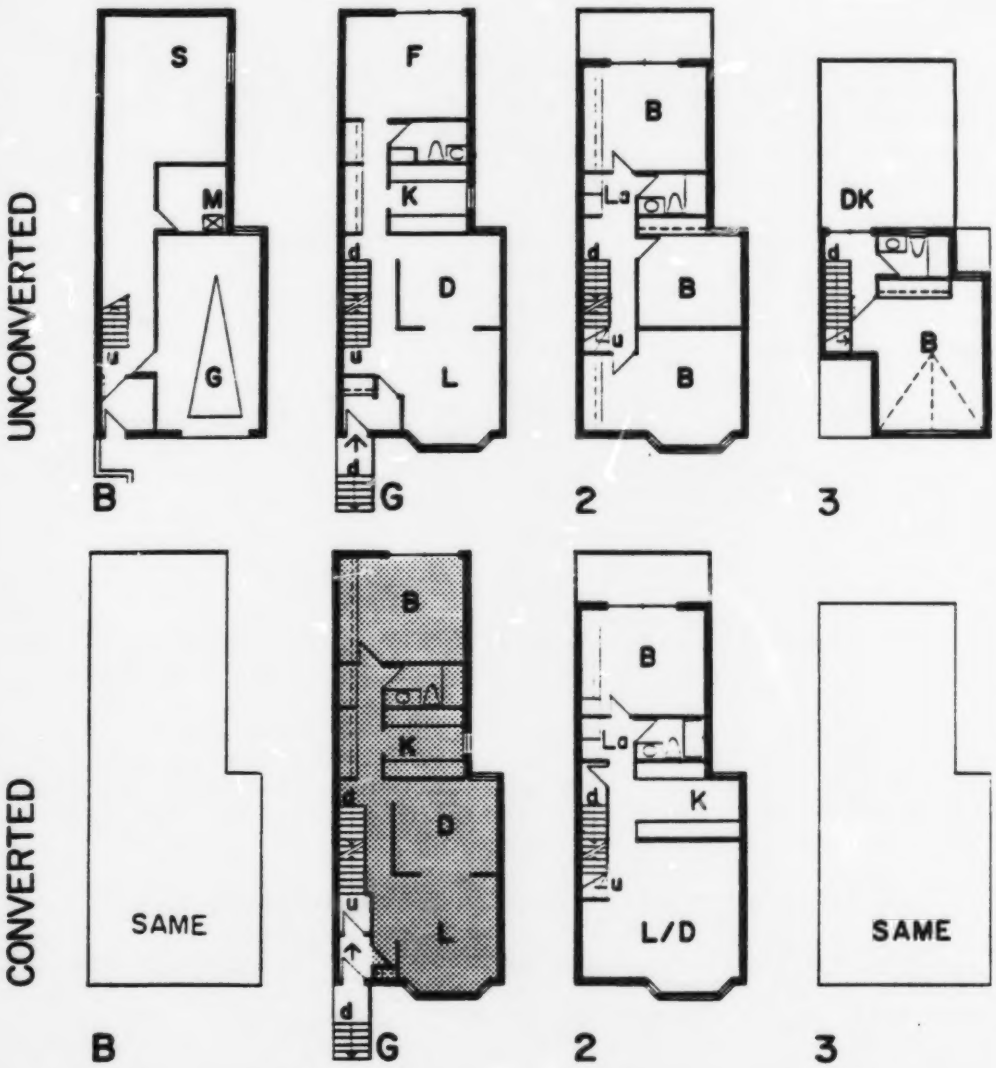
The conversion can be made without disruption to the primary unit. The only change involved is the addition of the door at the stairway leading to the lower level.

The major change needed to convert the lower level for the accessory unit involves adding the new kitchen. The other main improvements are the new partitions around the stairway and for separating the bedroom and living room.

The feature that makes this unit readily convertible is the lower split-level. Conventionally, this area contains a recreation/family room and a second bathroom, together with the separate entrance. Depending upon the grading of the site, this area also can have full windows and a walk-out patio.

The conversion costs are approximately $10,300, assuming that the lower level is already finished space. The deconversion can be undertaken at virtually no cost, and the "front-end" improvements are estimated to cost $1,450.

Example C1 - Downtown House with Ground Floor Unit



Example C1 - Downtown House with Ground Floor Unit

Description:

This example is based upon a typical three-storey detached or semi-detached house built around the turn of the century in many downtown areas.

As a single family home (200 m^2 gross), it has four bedrooms on the second and third floors. Separate living, dining and family rooms are provided on the ground floor with the kitchen. The basement contains a laundry, storage and parking for one car.

The unit can accommodate two types of conversion. In this example, C1, a one-bedroom accessory unit (85 m^2 gross) is provided on the ground floor, with a two-bedroom primary unit (115 m^2 gross) on the second and third floors. Both have access from the front entrance.

C2, on the next page, locates the accessory unit in the basement.

Conversion:

The major change that must be made for this conversion involves the primary unit. A new kitchen must be added on the second floor. This work probably would disrupt occupancy of the upper unit for at a short period.

The accessory unit on the ground floor is provided with limited changes. The two-piece bathroom must be converted to three-piece. Some modifications also must be made at the entrance.

As presently shown, only the lower unit has internal access to the basement and the parking. With a minor adjustment to the design, access from the upper unit also could be provided.

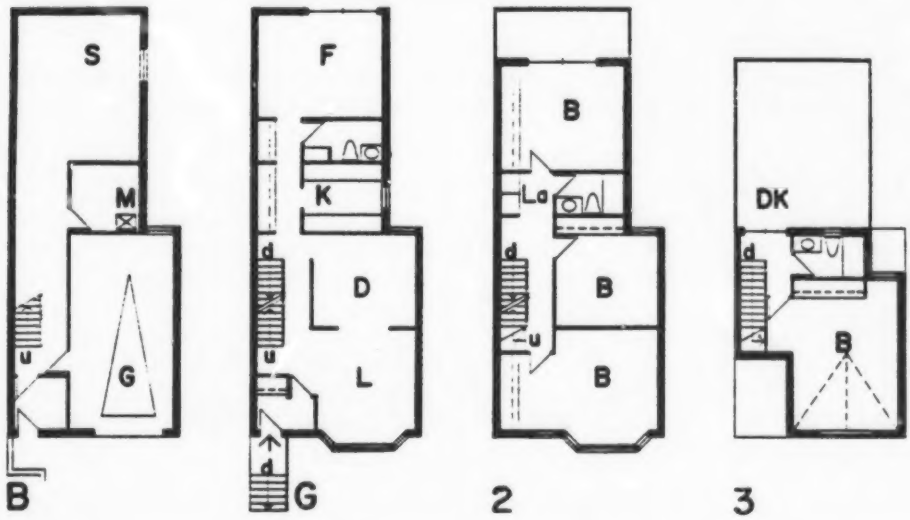
$10,250 is the estimated cost for conversion, and $750 for deconversion. The "front-end" costs are approximately $2,500.

CONVERSION COST BREAKDOWN

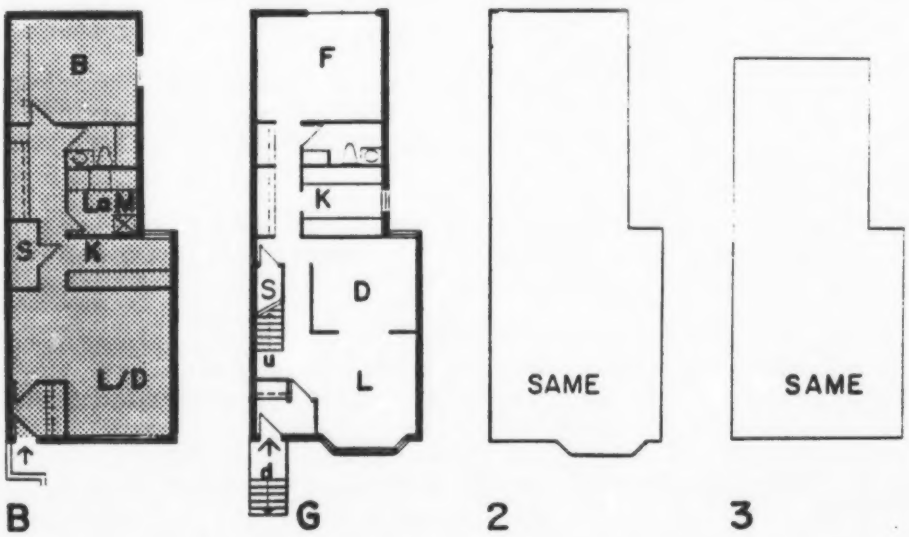
Kitchen	4,450
Laundry	1,100
Internal Walls	850
Closets	500
Doors	400
Flooring	850
Painting	1,400
Electrical & Other	650
Total	$10,250

Example C2 - Downtown House with Basement Unit

UNCONVERTED



CONVERTED



Example C2 - Downtown House with Basement Unit

Description:

This example is based upon the same unit type as C1 shown on the previous page. The difference between the two examples is only in the location of the accessory unit.

In this example, a one-bedroom accessory unit (85 m^2 gross) is accommodated in the basement, with a separate entrance at the front. The primary unit remains without major change on the upper floors.

Conversion:

The conversion of the basement for the accessory unit requires extensive work. The new kitchen and bathroom must be provided, and all of the walls, floor and ceiling finished.

The changes needed in the primary unit are minor and can be made without undue disturbance. They essentially involve closing off the access to the basement.

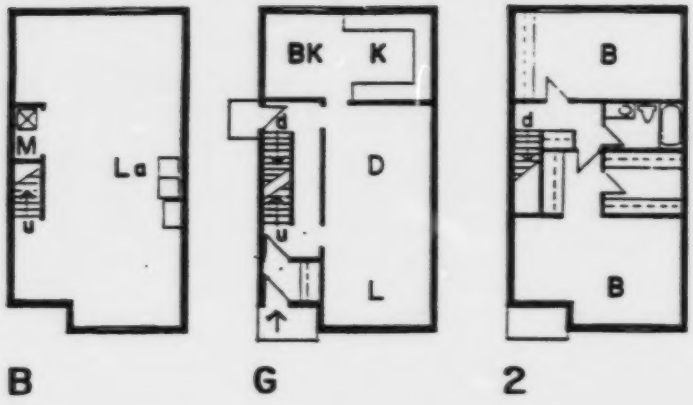
The conversions costs here are an estimated $20,800, with deconversion set at about $1,200. The "front-end" costs are approximately $2,500.

CONVERSION COST BREAKDOWN

Kitchen	2,900
Bathroom	3,600
Laundry	1,100
Internal Walls	1,200
External Walls	3,800
Closets	2,000
Doors	750
Windows	600
Flooring	2,350
Painting	1,000
Electrical	1,150
Other	350
Total	$20,800

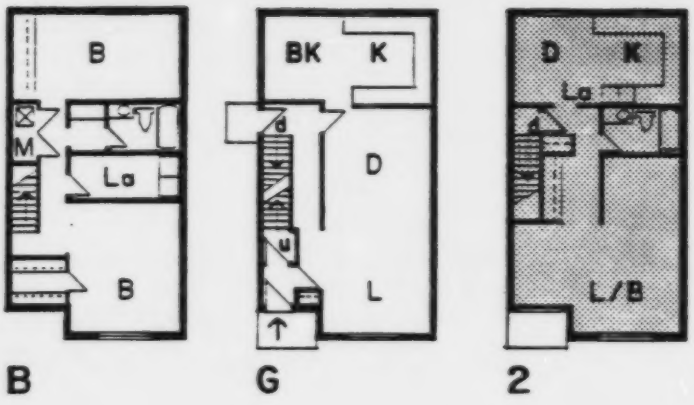
Example D1 - Suburban House with Second Floor Unit

UNCONVERTED



B G 2

CONVERTED



B G 2

CONVERSION COST BREAKDOWN

Kitchen	4,100
Bathroom	3,500
Laundry	1,100
Internal Walls	1,900
External Walls	2,900
Closets	2,000
Doors	2,050
Flooring	1,600
Painting	1,600
Electrical	650
Other	200
Total	$21,600

Example D1 - Suburban House with Second Floor Unit

Description:

This example illustrates a semi-detached or detached two-storey house.

As a single family house (134 m^2), it accommodates two large bedrooms on the upper floor, with the living areas on the ground floor. The basement is shown as unfinished space.

When converted, the house can accommodate an accessory bachelor unit in either one of two locations. In this example, the accessory apartment (67 m^2) is provided on the second floor. The two-bedroom primary unit is located on the ground floor and in the basement. Access to both units is from the existing front door, with the accessory unit using the existing stair to the second floor.

As an alternative the accessory unit can be located in the basement, as shown in D2 on the next page.

Conversion:

To make the conversion on the upper floor, major changes must be made throughout the house. The bedrooms and accompanying bathroom must be provided in the basement for the primary unit. A kitchen also must added on the top floor for the second unit, and changes made to the entrance vestibule on the ground floor. Because of the location of this work, vacancy of the premises probably would be required during conversion.

Conversion is expected to cost $21,600, with an additional $1,600 at the "front-end". Deconversion is estimated at $2,500.

Example D2 - Suburban House with Basement Unit

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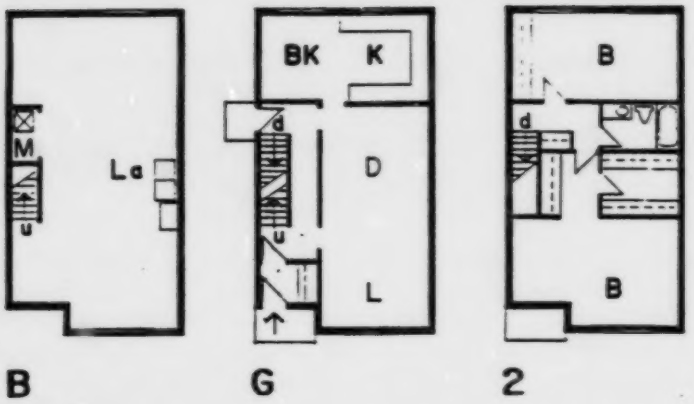

B G 2

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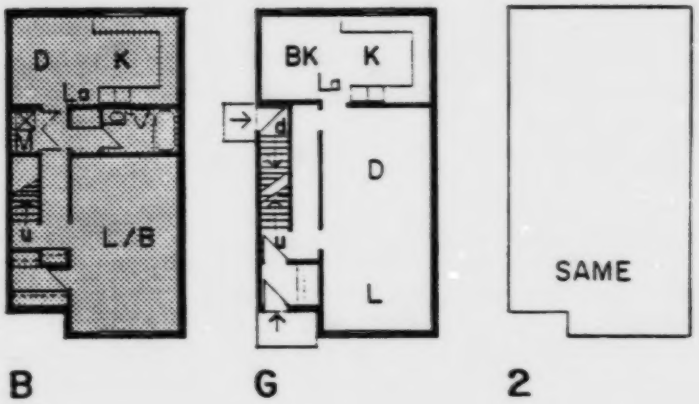


B G 2

CONVERSION COST BREAKDOWN

Kitchen	4,200
Bathroom	3,500
Laundry	1,250
Internal Walls	1,600
External Walls	2,900
Closets	1,500
Doors	750
Flooring	950
Painting	800
Electrical	1,200
Other	250
Total	$18,650

Example D2 - Suburban House with Basement Unit

Description:

This example is based upon the same house type as D1. The difference between the two is in the location of the accessory unit.

When converted in this example, the house accommodates an accessory bachelor apartment (67 m^2) in the basement. Access to the accessory apartment is from the side entrance using the existing stairs to the basement.

The primary unit (134 m^2) occupies the rest of the house, and remains essentially unchanged. Access to the main unit is from the front entrance.

Conversion:

To create the accessory unit, the basement must be extensively renovated. The external walls, floor and ceiling must be finished, and the new kitchen and bathroom added.

The conversion work, however, can be undertaken without significantly disturbing the primary unit. In this unit, the work is minor, as it only involves closing a doorway and adding a laundry.

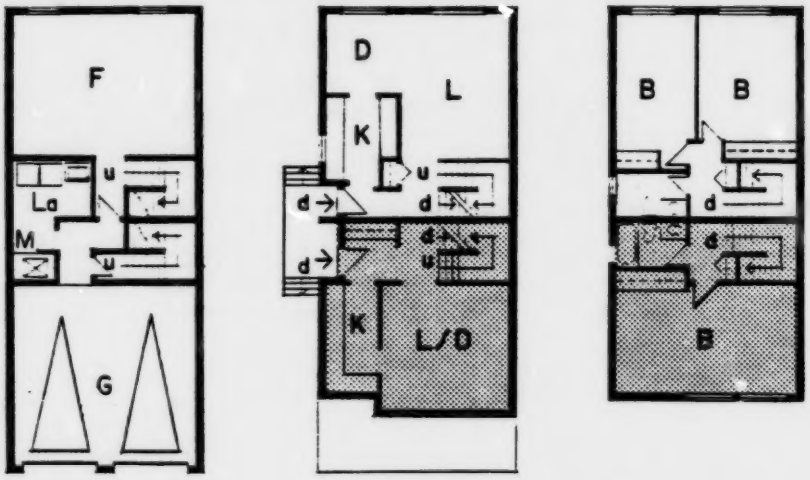
The conversion costs amount to $18,650, while the "front-end" costs add about $1,500. Deconversion is expected to cost $750.

Example E - Narrow House with Vertically-Split Unit

UNCONVERTED

B G 2

CONVERTED



B G 2

CONVERSION COST BREAKDOWN

Kitchen	4,200
Internal Walls	1,400
Doors	1,000
Painting	1,000
Electrical	500
Other	3,100
Total	$11,200

Example E - Narrow House with Vertically-Split Unit

Description:

This example is a two-storey detached or semi-detached unit.

As a single family house (170 m^2 gross), it has three bedrooms on the second floor, with the living and dining rooms and kitchen on the ground floor. The basement contains an integral two-car garage, along with the laundry, storage and family room.

When converted, it contains two vertically separated units. Each of these is a two-storey unit with a separate internal stair and an entrance at the side of the buildings. The parking, storage, and laundry in the basement are shared.

The larger two-bedroom primary unit (86 m^2) is located to the rear on the first and second floors, and retains access to the basement family room. The accessory unit (84 m^2) is on the front part of the these two floors. It has one bedroom, but two smaller bedrooms could be provided by adding another partition.

Conversion:

The key feature of this unit is its vertical separation. When compared with horizontal separation, it potentially has a number of advantages: better acoustic privacy, less extensive fire-separations, easier access to shared facilities in the basement, and direct access to grade for both units.

To provide for units on more than one floor, a second stair must be added. In the single family version, the space is used as a lightwell under a skylight in the roof.

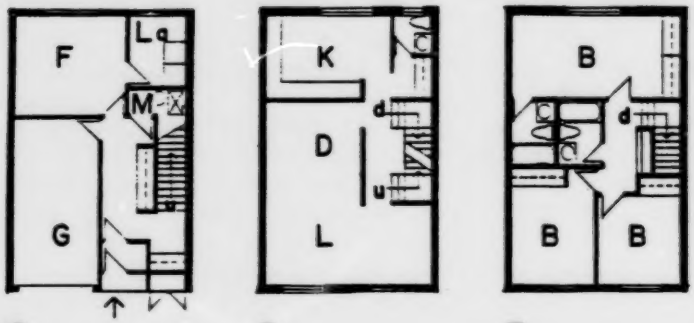
In the primary unit, the major changes that must be made are the addition of the stairway. A new entrance also must be provided, and the fire-rated partitions between the two units. This work could cause some inconvenience, but probably could be undertaken without vacancy.

In the second unit, the major changes include the provision of a new kitchen, and possibly, the addition of the partition for splitting the bedroom into two.

The total cost of conversion is estimated at $11,200, with an additional $1,850 for the "front-end" improvements. Deconversion is expected to cost about $1,500.

Example F - Townhouse with Integral Garage Unit

UNCONVERTED



G 2 3

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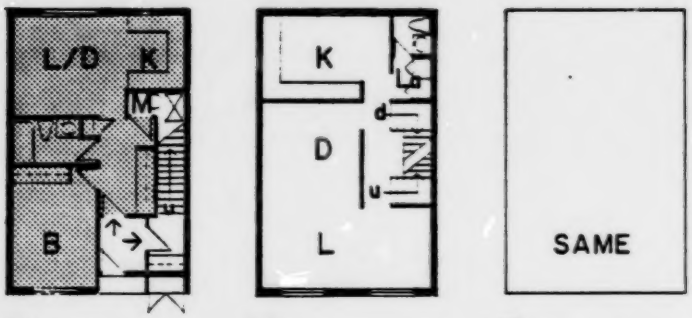


G 2 3

CONVERSION COST BREAKDOWN

Kitchen	3,800
Bathroom	3,500
Laundry	250
Internal Walls	750
External Walls	900
Closets	800
Doors	1,100
Windows	600
Flooring	1,300
Painting	700
Electrical	800
Other	250
Total	$14,750

Example F - Townhouse with Integral Garage Unit

Description:

This example is based upon a typical three-storey townhouse incorporating an integral garage on the ground floor.

As a single family house (160 m^2 gross), it is three-bedroom home with the living areas on the second floor and the sleeping areas on the third. The entrance is located alongside the garage on the ground floor, along with a family room and laundry.

When converted, the three-bedroom primary unit (125 m^2) retains the space on the upper two floors. The one-bedroom accessory unit (53 m^2) is located on the ground floor, and replaces the garage, family room and laundry. Both use the existing front entrance.

Conversion:

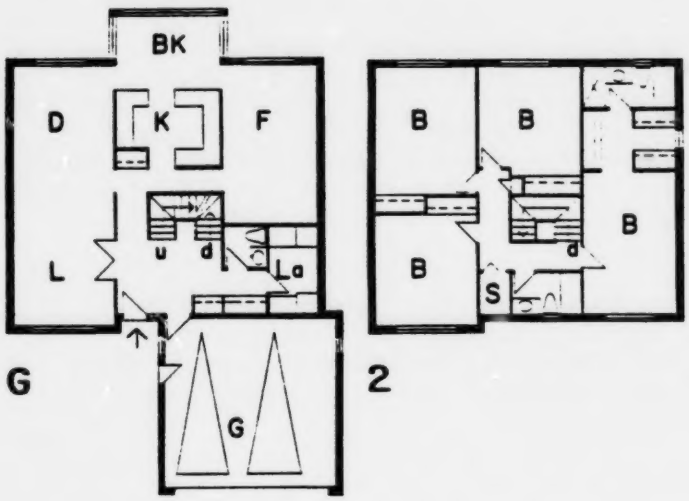
In making the conversion, the primary unit remains essentially unaffected, except that new laundry facilities must be added next to the kitchen.

Extensive changes, however, are needed on the ground floor to accommodate the accessory unit. A new kitchen and bathroom must be installed. The garage must be insulated and finished, and provided with new windows. Various modifications at the entrance also must be made.

The estimated conversion cost is $14,750, with an additional $550 needed for "front-end" improvements. The deconversion costs are approximately $1,750.

Example G - Wide-Front House with Attached Garage Unit

UNCONVERTED



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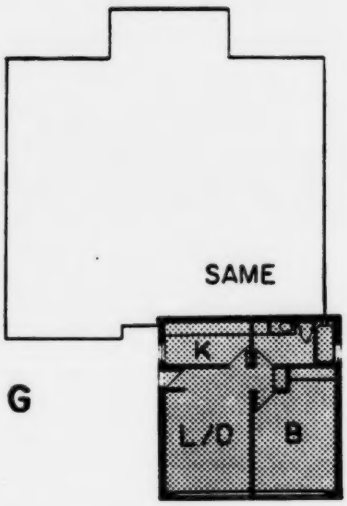

CONVERSION COST BREAKDOWN

Kitchen	3,200
Bathroom	3,500
Internal Walls	1,300
External Walls	1,600
Closets	1,050
Doors	650
Windows	1,200
Flooring	2,300
Painting	500
Electrical	1,050
Other	1,400
Total	$16,450

Example G - Wide-Front House with Attached Garage Unit

Description:

This example is contained within a double garage attached to a conventional two-storey wide-front house.

The house itself is unaffected by the conversion; it is common suburban model that has been included here only for the purpose of illustration.

An one-bedroom apartment (45 m^2 gross) can be accommodated in the double garage. Because the space available is limited, an alternative to consider is a bachelor unit.

Conversion:

Accommodating a residential unit in a double garage requires extensive improvements. These include the addition of a new kitchen and bathroom, and the provision of finished internal walls, floors and ceilings, as well as complete insulation and new windows.

The conversion costs amount to approximately $16,450, and the "front-end" costs about $650. The deconversion costs are about $2,000.

The key feature needed for ready conversion of an attached garage is access to plumbing. In this case, it is provided by the abutting ground floor bathroom and laundry in the primary unit. This arrangement is fairly common in this unit type.

The primary unit in this conversion remains essentially unchanged. Only the linking doorway must be closed.

Example H - Single-Aspect Apartment

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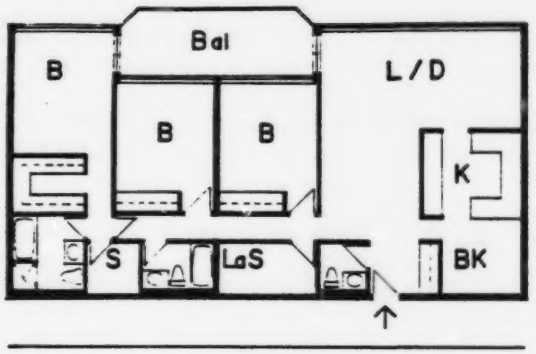

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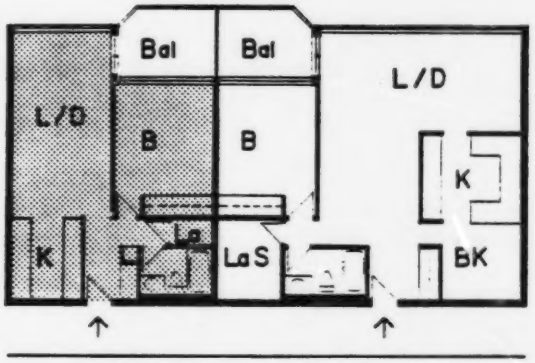

CONVERSION COST BREAKDOWN

Kitchen	3,550
Bathroom	450
Laundry	1,200
Internal Walls	850
Closets	950
Doors	950
Flooring	350
Painting	700
Electrical	700
Other	1,300
Total	$11,100

Example H - Single-Aspect Apartment

Description:

The example is based upon a medium-sized conventional single-aspect unit typically found in high-rise apartment buildings. It is located on a corridor between two other units. This layout is very common with a large number of variations.

As a single unit (146 m^2 gross), it is a three-bedroom apartment on one level. A large living/dining room and separate breakfast area are provided, together with two and a half bathrooms. The third bedroom can be used as a study or family room.

When converted, the unit accommodates a two-bedroom apartment (94 m^2) plus a second one-bedroom apartment (52 m^2).

Conversion:

The separation of the units is made essentially by closing the door opening in the party wall.

The major change in the accessory unit involves converting the master bathroom into a kitchen. A new entry also must be provided and closets rearranged.

In the primary unit, the improvements include extending the bathroom and modifying the laundry room. This work may require temporary vacancy of the unit.

The conversion costs are estimated at $11,000, while those for deconversion are $7,250. No "front-end" costs are involved.

Example I - Double-Aspect Apartment

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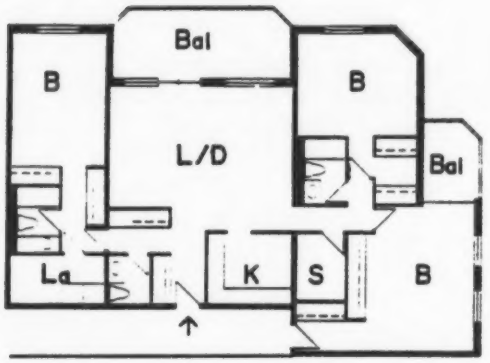

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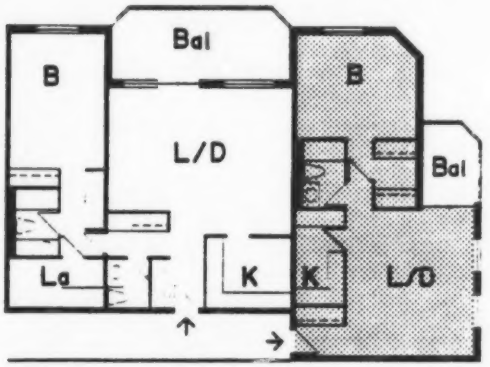

CONVERSION COST BREAKDOWN

Kitchen	3,600
Internal Walls	200
Doors	100
Flooring	300
Painting	500
Electrical	400
Other	100
Total	$ 5,200

Example I - Double-Aspect Apartment

Description:

The example is based upon a double-aspect unit located at the corner of a multi-storey apartment building. This type of unit is less common than single-aspect apartments, but variations of it are built.

As a single unit, it is a three-bedroom apartment on one level (146 m^2 gross). It has a second outside door leading to one of the bedrooms, making it suitable for use as a family room, office or an "au paire" suite. A private bathroom also could be provided for this area in place of the storage room.

When converted, the example accommodates two one-bedroom units (85 and 61 m^2).

Conversion:

This example represent an economical conversion. The separation of the units is made essentially by closing a doorway in the partywall. The main work is associated with adding the second kitchen. The primary unit could be occupied during the work with only minor inconvenience.

The estimated conversion costs are $5,200, while those for deconversion are $1,500. There are no "front-end" costs.